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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/755,197	01/08/2001	Werner Lehner	31833-169020 RK	4843
26694	7590	10/15/2004	EXAMINER	
VENABLE, BAETJER, HOWARD AND CIVILETTI, LLP			STREGE, JOHN B	
P.O. BOX 34385			ART UNIT	PAPER NUMBER
WASHINGTON, DC 20043-9998			2625	15
DATE MAILED: 10/15/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/755,197

Applicant(s)

LEHNER ET AL.

Examiner

John B Strege

Art Unit

2625

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 5/18/04.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 70-77 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 70-73 is/are rejected.
- 7) ☒ Claim(s) 74-77 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 13.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date: \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

***Response to Amendment***

Applicant's arguments, see paper #14, filed 5/18/04, with respect to the rejection(s) of claim(s) 70-77 under 35 USC 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of European Patent Application 0 179 252.

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 70-71 are rejected under 35 U.S.C. 103(a) as being unpatentable over Roesch et al. European Patent Application 0179252 (hereinafter "Roesch") (included in the IDS). The following excerpts of Roesch come from the Official English translation.

Claim 70 discloses, "A method for monitoring a detection region of a working element". Roesch discloses a method and apparatus for protecting persons located within the action area of movable machine parts (as stated in the title).

Claim 70 further discloses, " the method comprising the following steps: monitoring continuously a detection region with at least one camera". Roesch discloses

that at least one color television camera for monitoring the machine tool and the person is arranged corresponding to the programmed movement sequences of the machine tool (page 5, second full paragraph).

Claim 70 further discloses, "reading image information, in the form of color values, generated in the camera during the monitoring into an evaluation unit". Roesch discloses evaluating the video-color signals read from the color camera (page 5, second full paragraph).

Claim 70 further recites, "distinguishing endangered objects from non-endangered objects with the evaluation unit based on the color values." Roesch discloses that the movable machine parts (non-endangered objects) are provided with one of the basic colors of the colored television camera and essential portions of the operator's working clothes (endangered objects) are provided with one of the other basic colors of the television camera (page 5, second full paragraph).

Claim 70 concludes, "disabling the working element with the evaluation unit, if at least one endangered object is detected within at least one protection zone in the detection region; and enabling the working element with the evaluation unit if no endangered object is located in the protection zone." Roesch discloses that the distance between the grid fields of different video color signals is respectively determined for shutting down the machine tool if a predetermined grid field distance is not reached (page 7, last paragraph). Here it is inherent that if the operator is far enough away from the machine then the machine is enabled. Roesch does not explicitly disclose a protection zone.

Although the English abstract of Roesch does not explicitly disclose a “protection zone”, it is obvious that the zone surrounding the machinery and be read as the protection zone since it is always in the detection region. Therefore an operator passing too close to the machinery is entering into the protection zone and a warning signal is sounded or the machine is shut down as a protective step.

Regarding claim 71, Roesch does not explicitly disclose that the image generated in the camera is read in the form of a pixel matrix. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to use generate the image using a pixel matrix. Applicant has not disclosed that using a pixel matrix provides an advantage, is used for a particular purpose or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with a colored television camera because it provides the color information necessary.

Therefore, it would have been obvious to one of ordinary skill in this art to modify Roesch to obtain an image using a pixel matrix to obtain the invention as specified in claim 71.

Regarding claim 72, Roesch discloses processing the color signals using a threshold value circuit (page 14, second paragraph). As seen in figure 4, the output of the threshold circuit is a binary signal.

Regarding claim 73, Roesch does not explicitly disclose that the threshold value unit is part of a neural network. it is well known to evaluate color signals using a neural network and therefore the Examiner declares Official Notice. It would have been

obvious to use a neural network for the color evaluation to allow the system to learn from previous color data.

***Allowable Subject Matter***

3. Claims 74-77 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John B Strega whose telephone number is (703) 305-8679. The examiner can normally be reached on Monday-Friday between the hours of 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bhavesh Mehta can be reached on (703) 308-5246. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JS



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